



## DoD Materiel Readiness and Maintenance Policy

# FACT BOOK

2006





ACQUISITION, TECHNOLOGY  
AND LOGISTICS

OFFICE OF THE DEPUTY UNDER SECRETARY OF DEFENSE  
(LOGISTICS AND MATERIEL READINESS)  
3500 DEFENSE PENTAGON  
WASHINGTON DC 20301-3500

Defense maintenance is big business, costing more than \$81 billion in FY2005 (including all wartime supplemental funding) and involving more than 659,000 military and civilian maintainers who—along with several thousand commercial firms—support approximately 280 ships, 14,000 aircraft, 900 strategic missiles, and 330,000 ground combat and tactical vehicles.

The *DoD Materiel Readiness and Maintenance Policy Fact Book* contains a broad range of information about DoD maintenance capabilities and programs that span major depots and shipyards as well as intermediate and organizational-level units around the world.

Also included are the winners of the 2005 and 2006 Secretary of Defense maintenance awards.

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Assistant Deputy Under Secretary of Defense  
(Materiel Readiness and Maintenance Policy)



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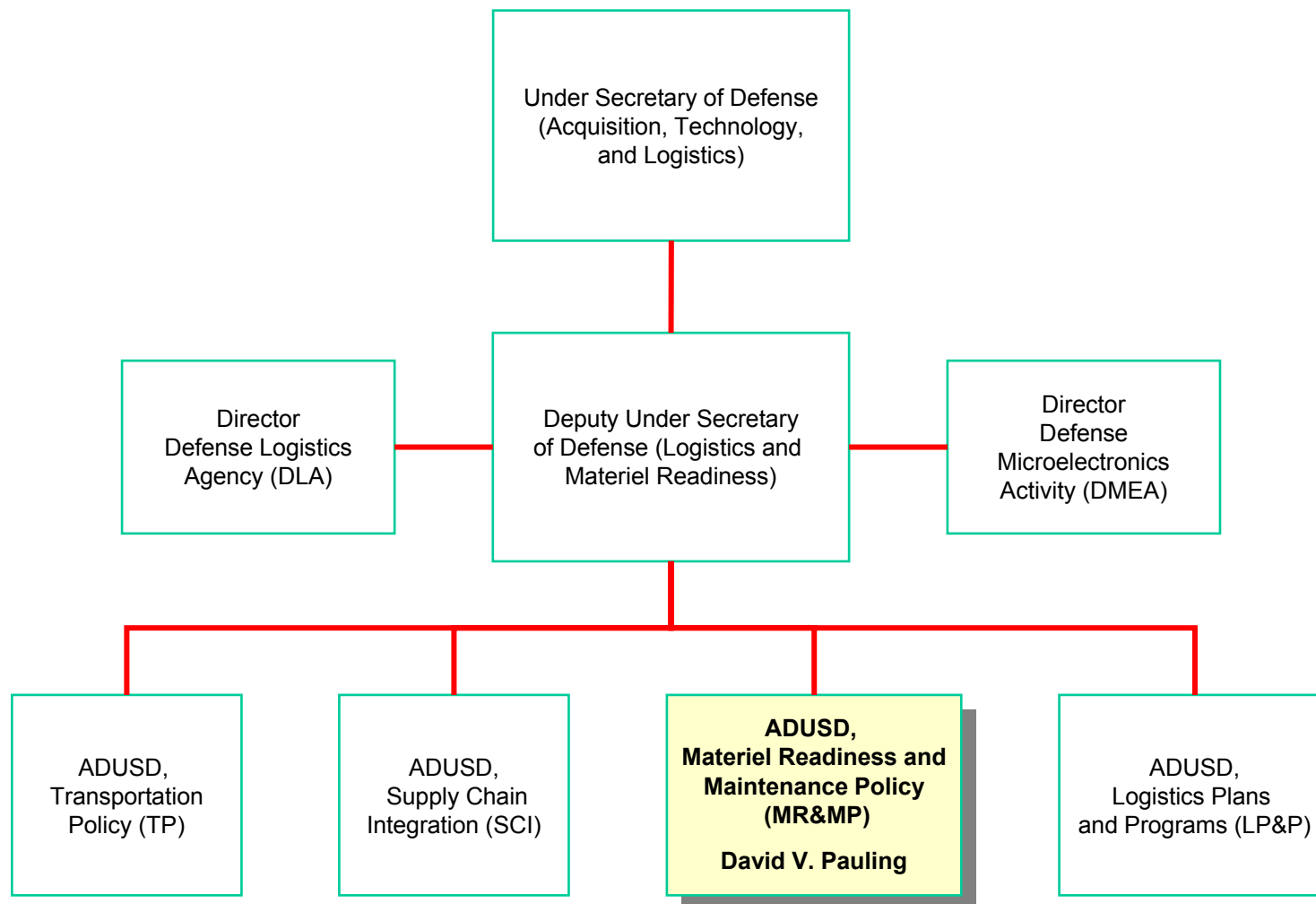
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# OSD Logistics Organization



# Mission Statement

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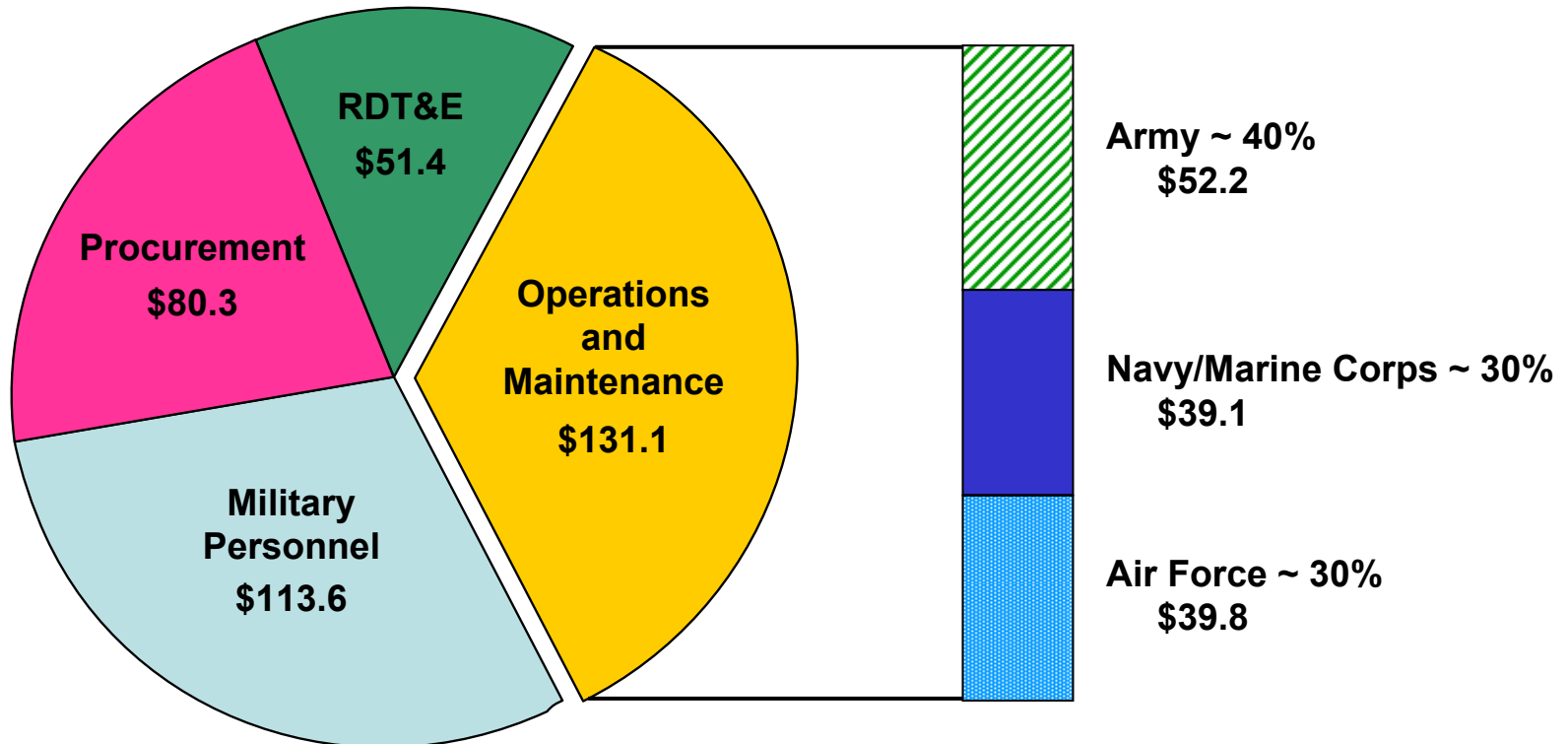
## ADUSD(MR&MP):

- Materiel Readiness—Principal advisor for policies and procedures designed to achieve and sustain planned weapon system and equipment materiel readiness. Responsible for aligning and integrating the efforts of the functional specialties comprising the end-to-end weapon system sustainment value chain: post-production materiel acquisition, materiel distribution, materiel supply support, materiel maintenance, and sustaining engineering. Key goals include enhancing materiel readiness policies and procedures, optimizing materiel readiness resource distribution, providing materiel readiness performance-to-plan oversight, and leading continuous process improvement within the sustainment enterprise.
- Maintenance Policy—Provides guidance and oversight to ensure all DoD weapon and equipment items are maintained in accordance with approved policies and procedures. Principal sponsor for cross-Service programs to improve maintenance capability and reduce maintenance costs. Integrates and supports Service maintenance budgets within the Planning, Programming, Budgeting, and Execution System (PPBES). Key goals include establishing managerially and technologically sound, adequately resourced maintenance policies and programs that contribute to the sustained readiness of defense materiel and the successful accomplishment of DoD missions.

# FY2006 Budget for the Military Services (in billions)

DoD  
Overview

Total: \$376.4 billion



Does not include military construction, family housing, or revolving and management funds.

Source: FY2007–2011 President's Budget data as of April 2006

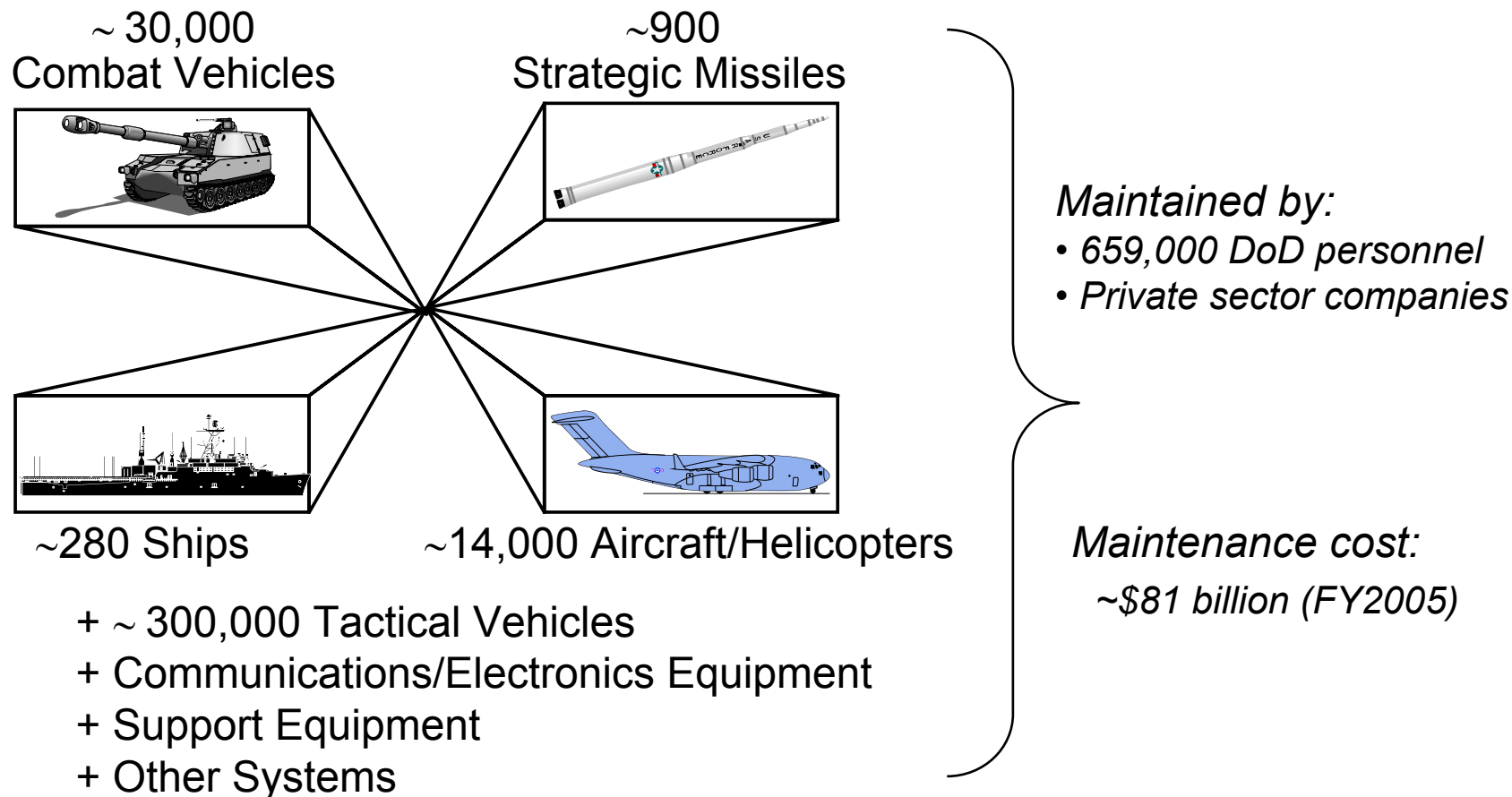
# PBL Implementation Status

	Total ACAT I & II Programs	Current PBL Programs	Scheduled PBL Programs	Total ACAT I & II PBL Programs
Army	60	18	28	46
Navy and Marine Corps	85	35	23	58
Air Force	70	33	17	50
DoD	215	86	68	154

The number of performance-based logistics (PBL) programs in **all** acquisition categories (ACATs) exceeds 250

Does not include ACAT III and IV and subsystem PBL programs.

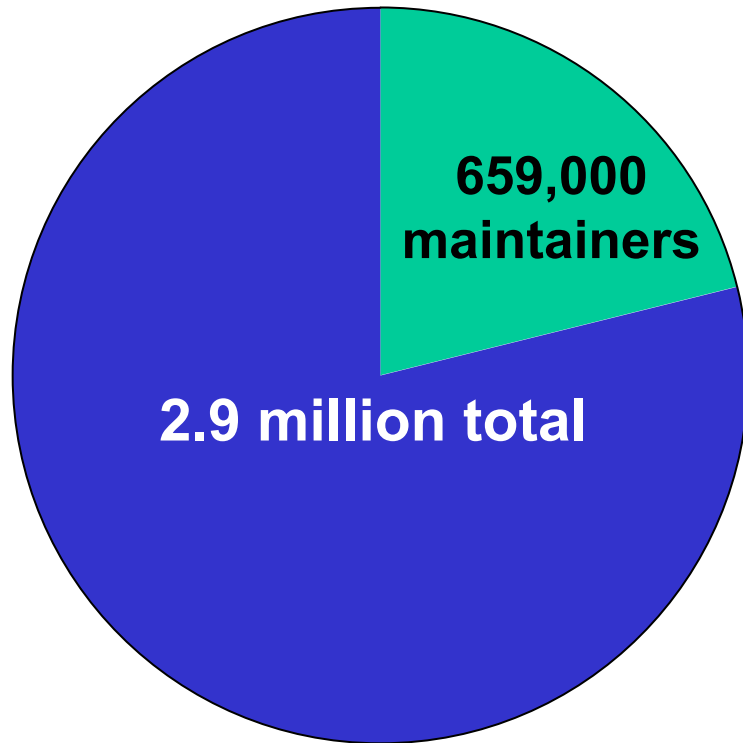
# Systems Supported by DoD Maintenance



DoD's military equipment is valued at ~\$300 billion.

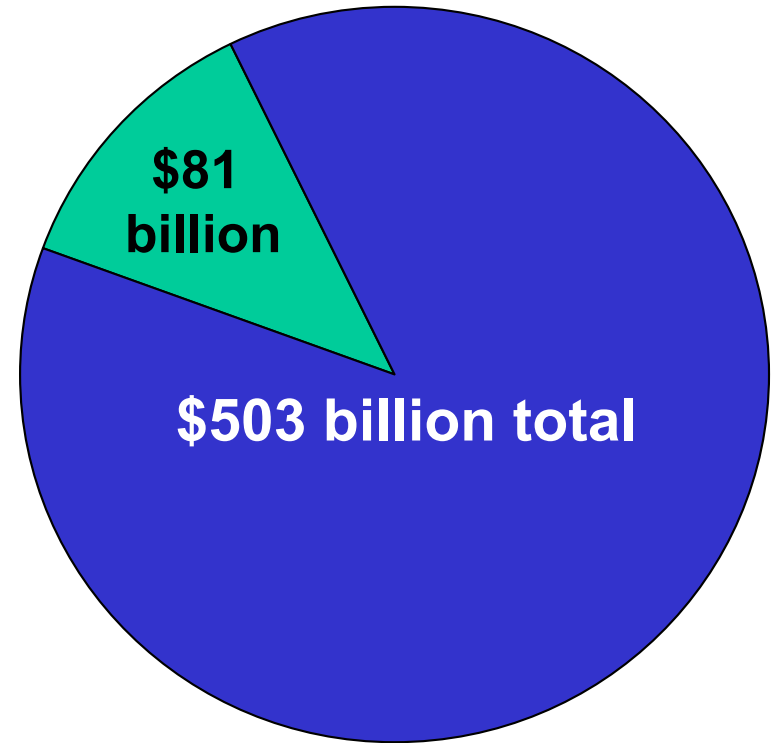
# Scope of DoD Maintenance

**DoD Personnel**



23% maintainers

**DoD Budget**



16% spent on maintenance

Sources: FY2007–FY2011 President's Budget and  
LMI analysis of Defense Manpower Data Center FY2005 data

# Levels of DoD Maintenance



Organizational



Intermediate



Regional

Depot

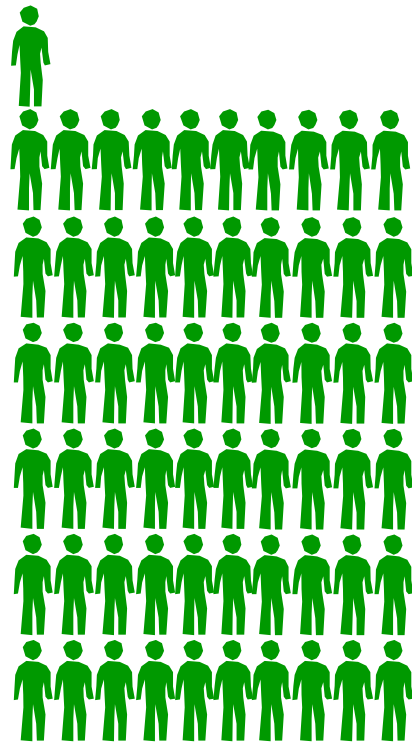
Increasing **volume** of maintenance

More frequent tasks that require  
less facilitization/skills

Less frequent tasks that require  
more facilitization/skills

Increasing **complexity** of maintenance

# Personnel Strength of Field- and Depot-Level Maintenance



**~614,000 field-level  
maintainers**

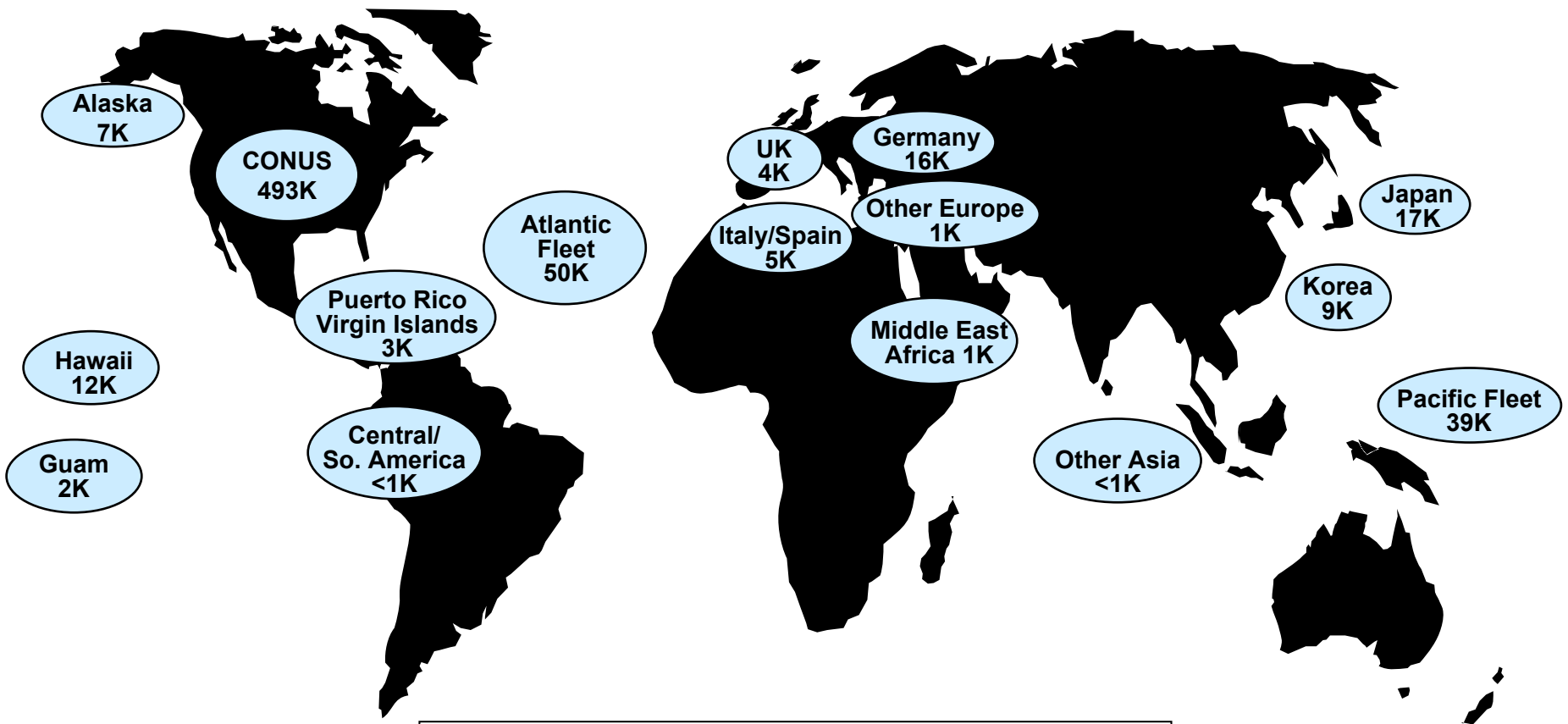


**~73,000 depot-level  
personnel**  
(including ~28,000 non-maintainers)

Source: LMI analysis of Defense Manpower Data Center  
and Joint Depot Maintenance Activity Group data for FY2005

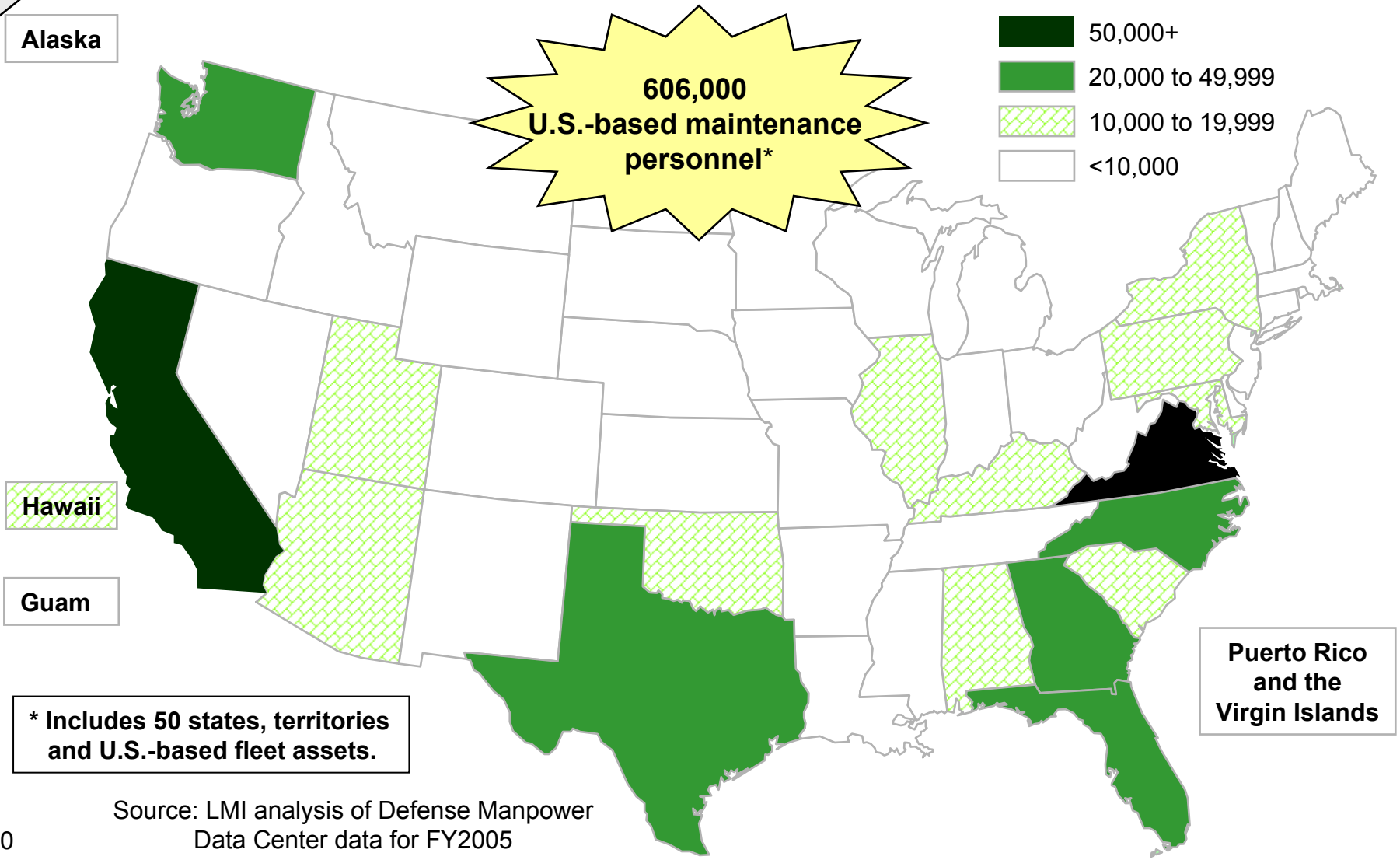
# Maintenance Personnel Worldwide

Maintenance  
Workforce



Locations reflect home stations of units and personnel;  
Atlantic and Pacific fleet assets are CONUS-based.

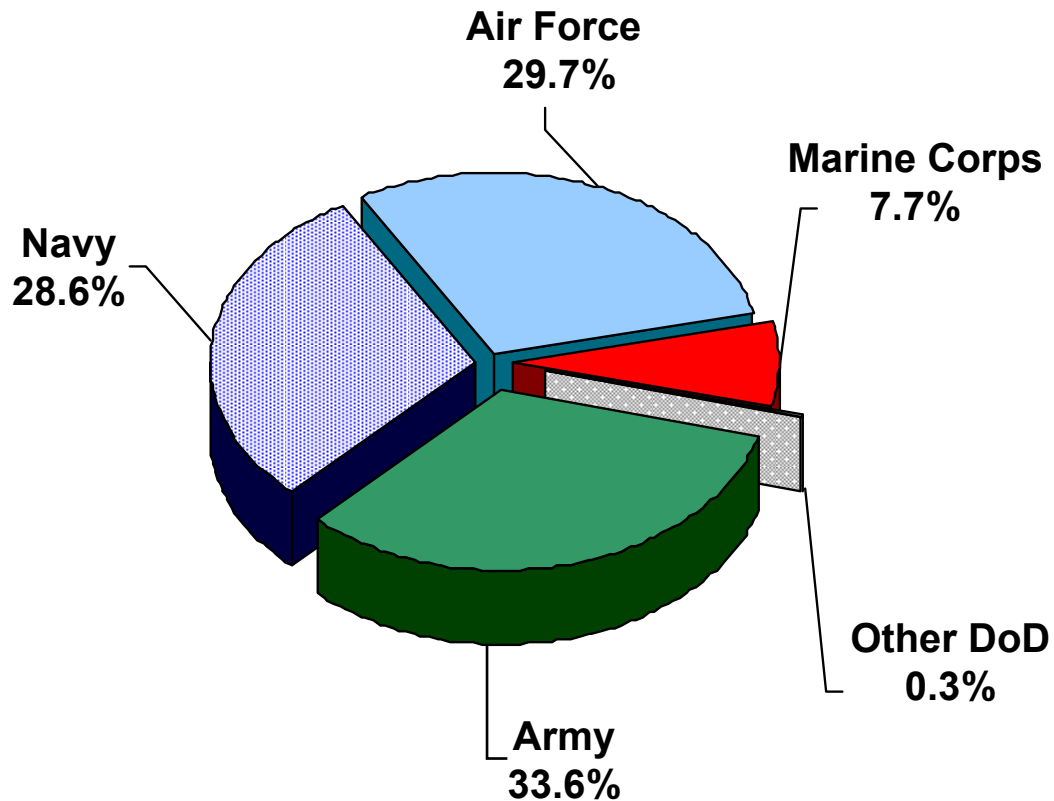
# Maintenance Personnel by State and Territory



Source: LMI analysis of Defense Manpower  
Data Center data for FY2005

# DoD Maintainers by Military Service

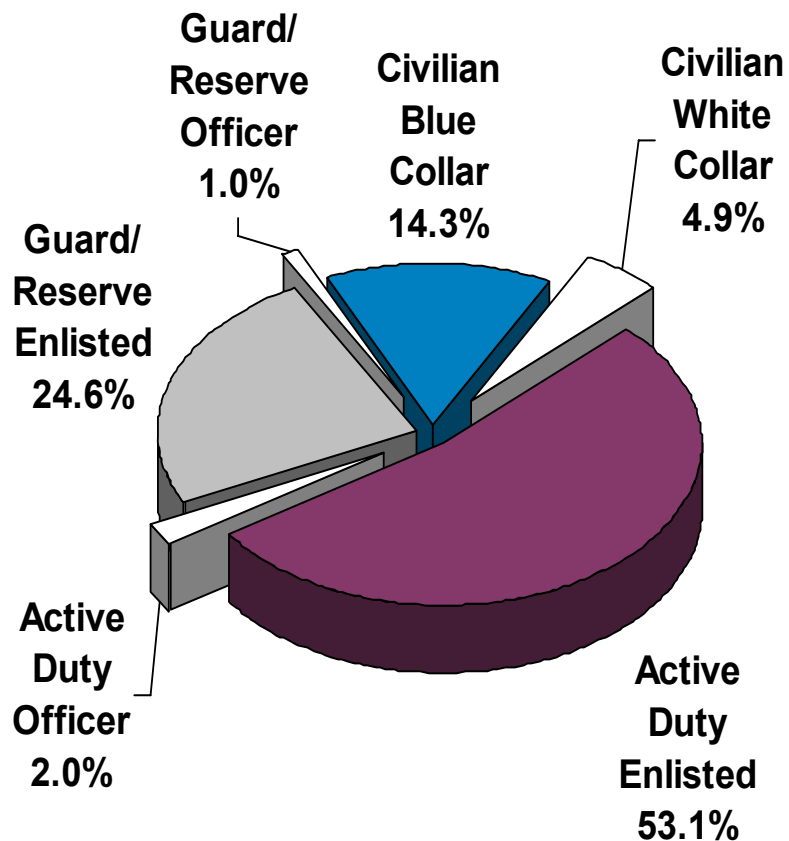
Maintenance  
Workforce



Army	221,000
Navy	189,000
Air Force	196,000
Marine Corps	51,000
Other DoD	2,000
Total DoD Maintainers	659,000

Source: LMI analysis of Defense Manpower Data Center data for FY2005  
(Percentages may not equal 100% due to rounding.)

# DoD Maintainers by Personnel Category



Active Duty Enlisted	350,000
Active Duty Officer	13,000
Guard/Reserve Enlisted	162,000
Guard/Reserve Officer	7,000
Civilian Blue Collar	94,000
Civilian White Collar	32,000
Total DoD Maintainers	659,000 <sup>a</sup>

<sup>a</sup> Table numbers are the result of rounding.

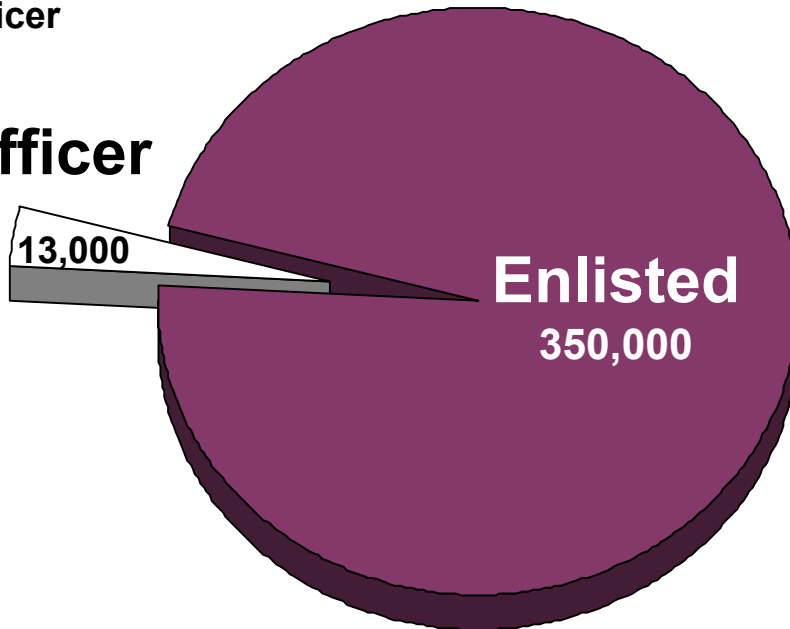
Source: LMI analysis of Defense Manpower Data Center data for FY2005  
(Percentages may not equal 100% due to rounding.)


# Active Duty Maintainers

Maintenance  
Workforce

70.1% Commissioned Officer  
29.9% Warrant Officer

 **Officer**

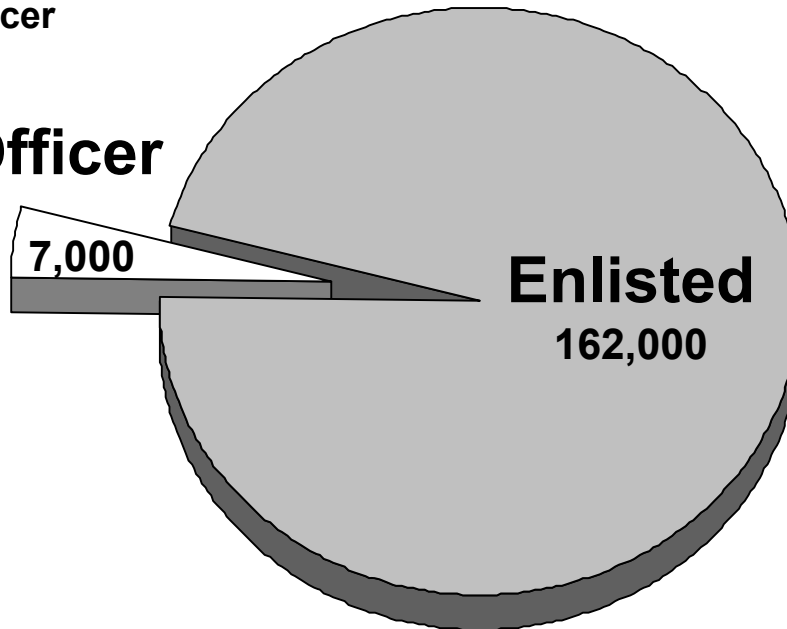


  
66.0% Mechanical/Electrical  
25.4% Electronic  
4.1% Craftworkers  
4.5% Other

# National Guard and Reserve Maintainers

64.2% Commissioned Officer  
35.8% Warrant Officer

**Officer**



71.3% Mechanical/Electrical  
19.6% Electronic  
5.9% Craftworkers  
3.2% Other

# DoD Civilian Maintainers

Maintenance  
Workforce

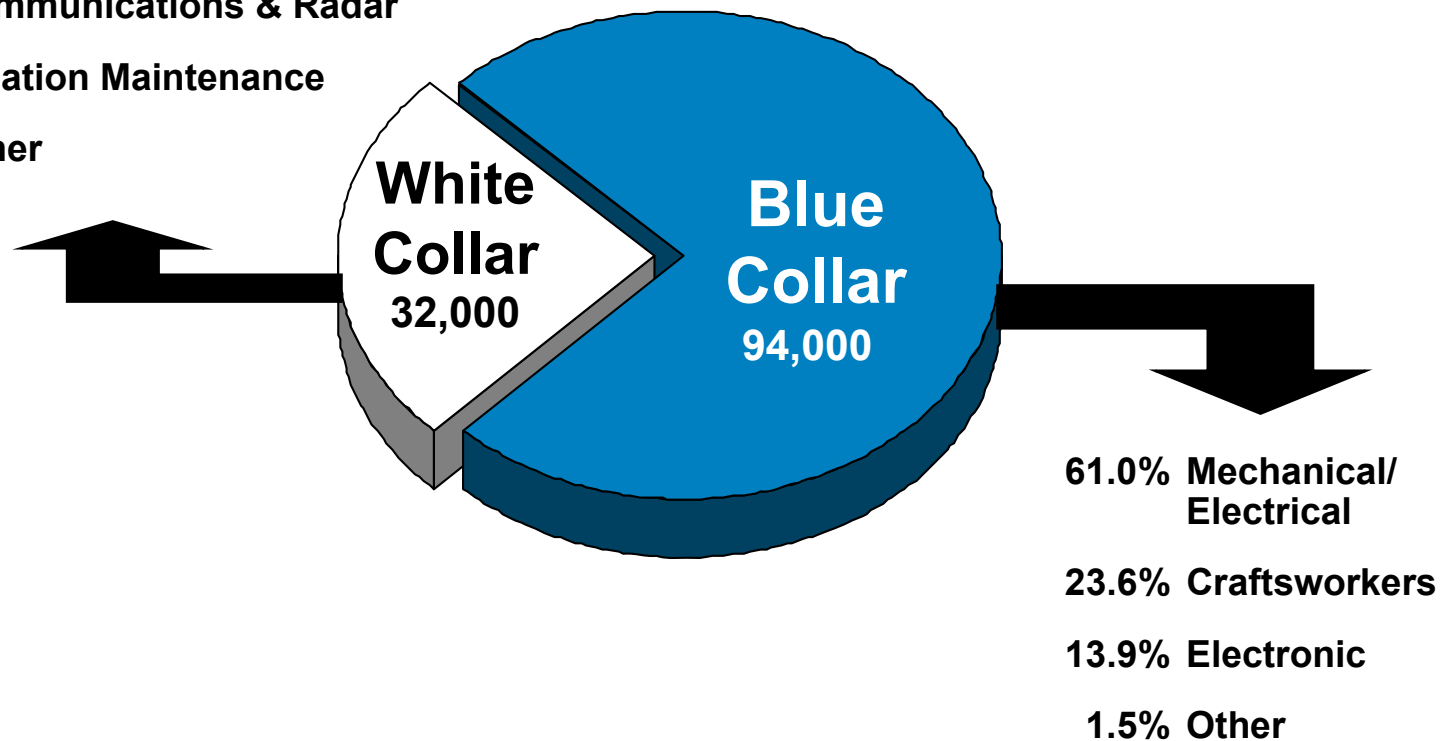
**43.5% Electrical/Mechanical & Electronic**

**16.9% Production Management**

**9.6% Communications & Radar**

**11.1% Aviation Maintenance**

**18.9% Other**



# Major Intermediate Maintenance Activities

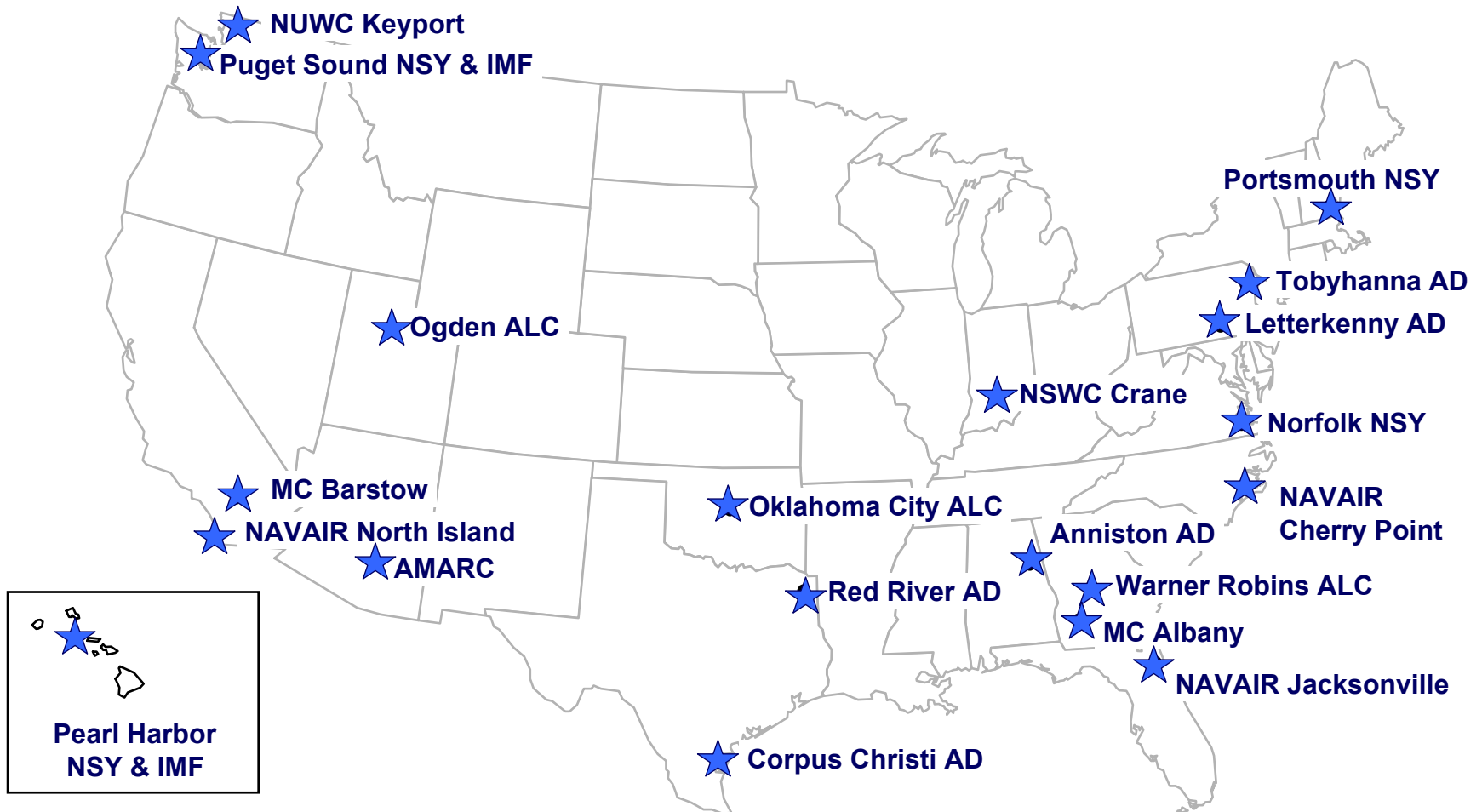
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- **Army**
  - 21 aviation intermediate maintenance (AVIM) companies
  - 70+ direct support/general support (DS/GS) companies
- **Navy**
  - 15 shore-based aircraft intermediate maintenance detachments (AIMDs)
  - 24 shipboard AIMDs
  - 7 ship/submarine intermediate maintenance facilities (IMFs)
- **Air Force**
  - 61 aircraft and missile maintenance groups (MXGs)
- **Marine Corps**
  - 11 Marine aviation logistics squadrons (MALS)
  - 3 maintenance battalions

Does not include intermediate National Guard and Reserve maintenance activities.

# Major Depot-Level Activities by Location

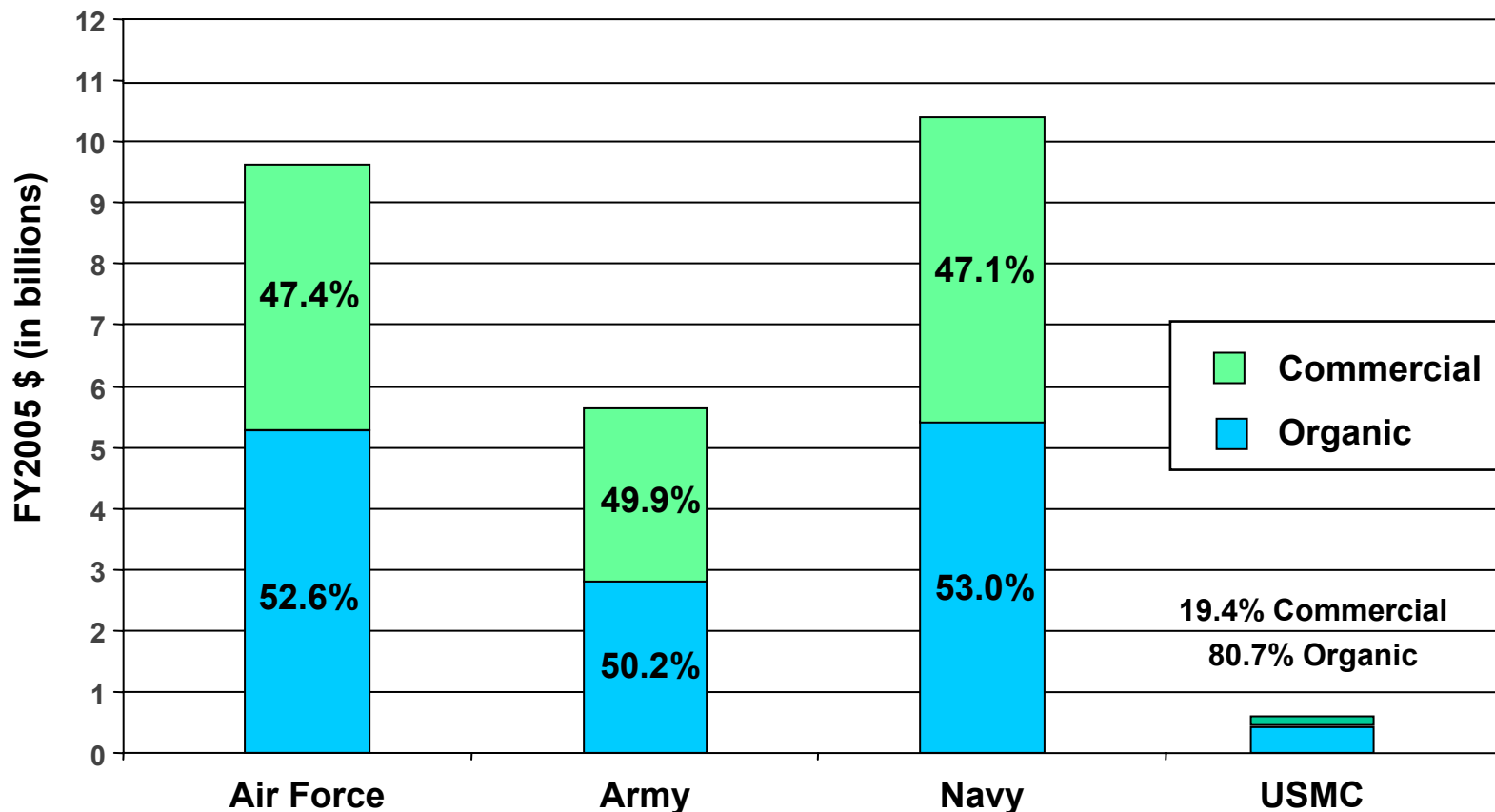
Depot  
Maintenance



Major depot-level activities comprise depots and shipyards that employ 400 or more personnel.

# Organic-Commercial Mix of DoD Depot Maintenance Workload

**DoD-wide: 53% Organic and 47% Commercial**

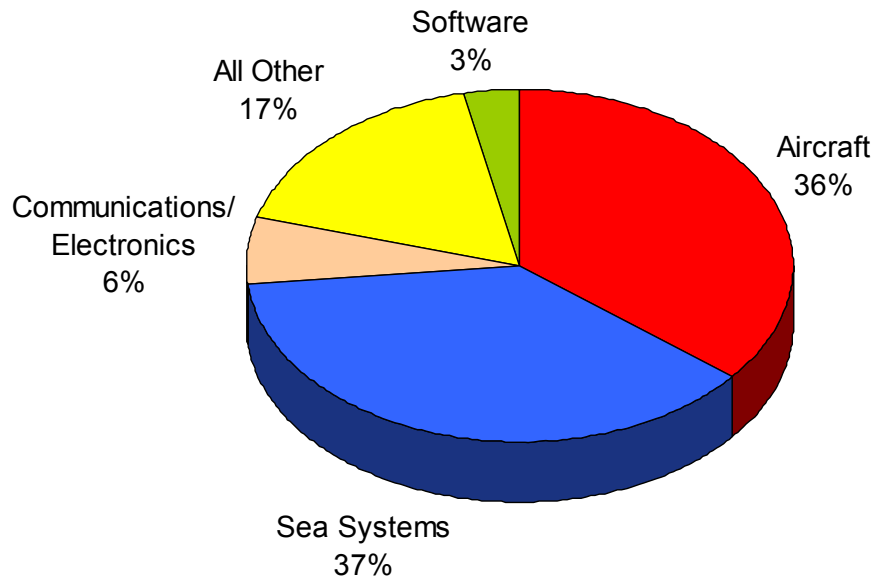


Source: DUSD(L&MR), *Distribution of DoD Depot Maintenance Workloads: Fiscal Years 2005 through 2007*, April 2006 (Percentages may not equal 100% due to rounding.)

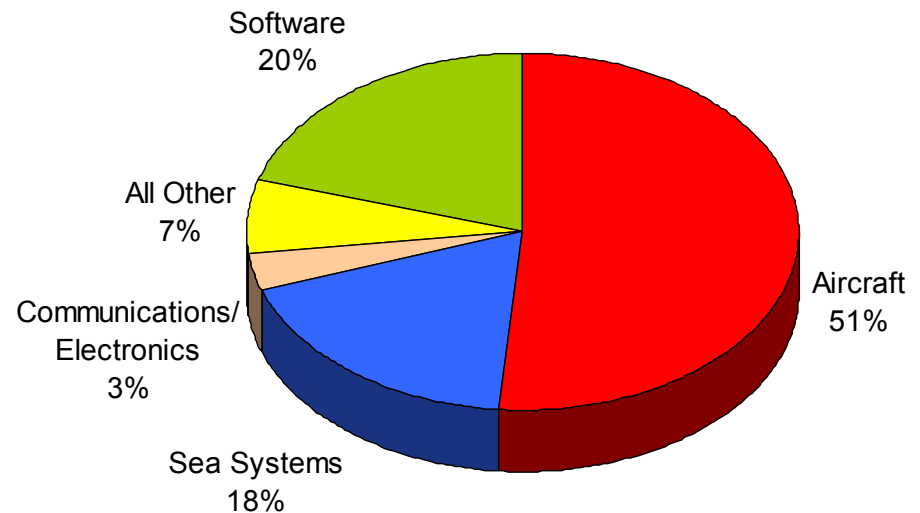
# Workload Distribution by Major System Category

Depot  
Maintenance

**Depot Maintenance Performed  
by DoD Organic Depots  
(Direct Labor Hours)**



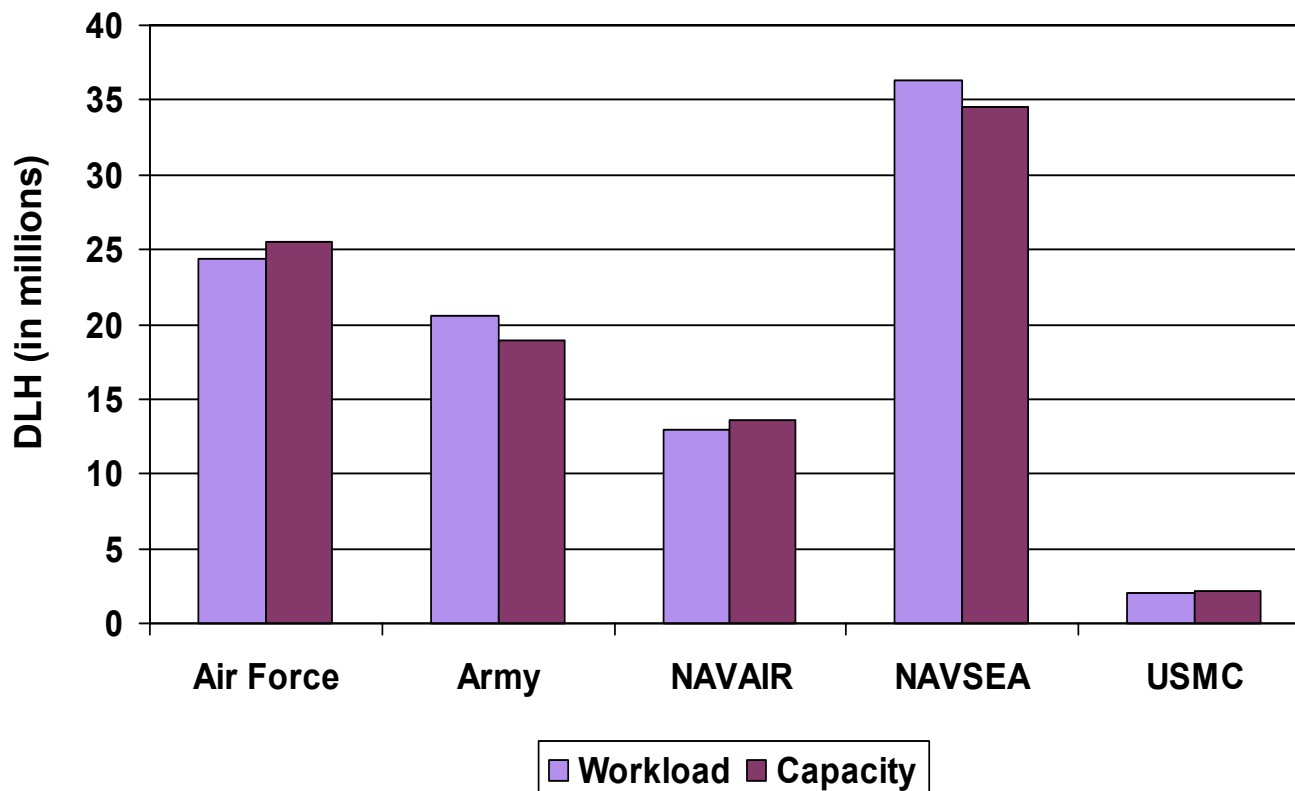
**Depot Maintenance Performed  
by Defense Contractors  
(Cost)**



Source: Joint Group on Depot Maintenance *Depot Maintenance Business Profile: FY2005–FY2011*, August 2006 (Percentages may not equal 100% due to rounding.)

# Capacity Utilization of Organic Depot Maintenance

Overall Organic Depot Capacity Utilization: ~101%

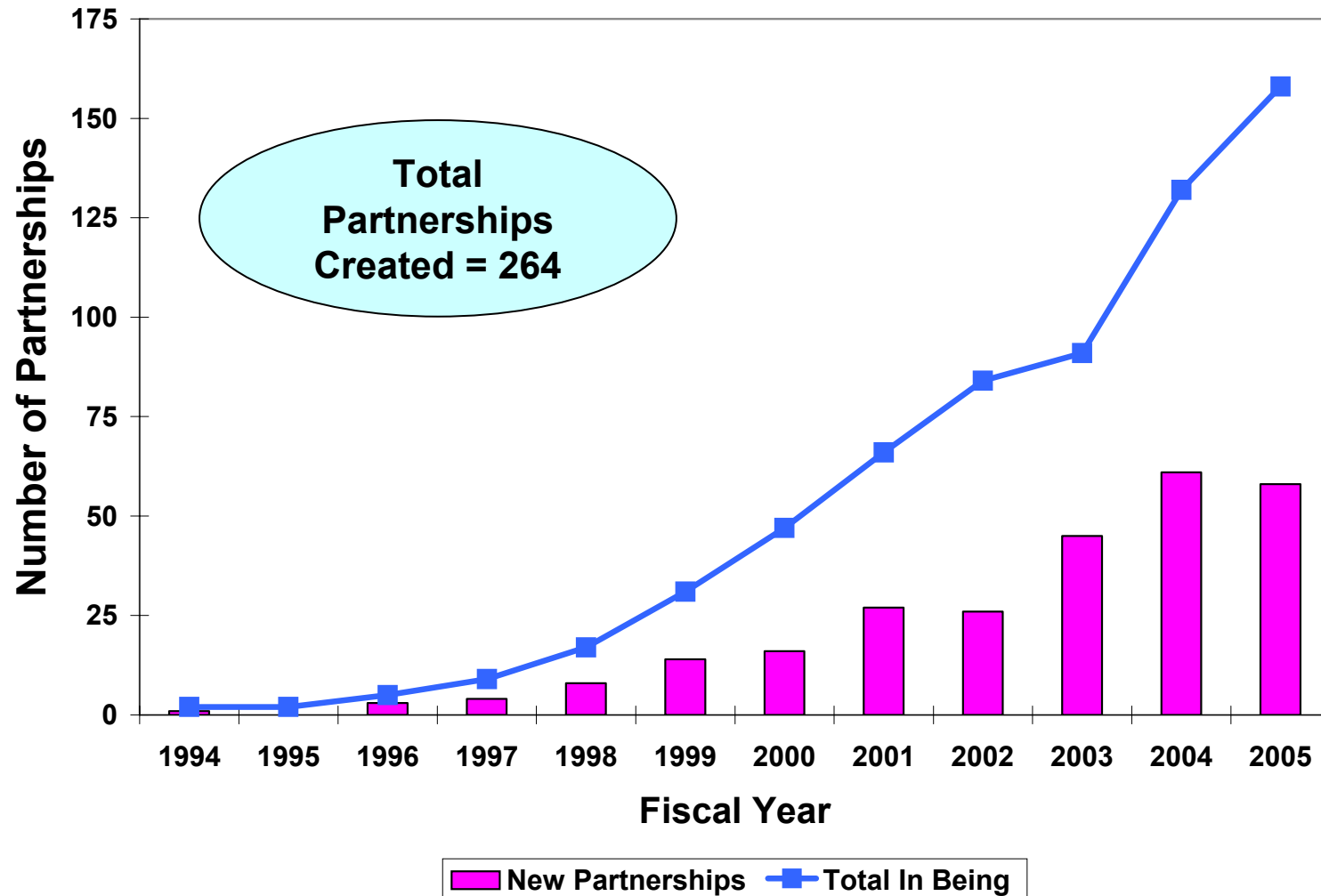


FY2005 data for DoD's 20 major depots.

Capacity metrics are based on single-shift operations without overtime or surge.

# Public-Private Partnership Growth Trend

Depot  
Maintenance



Source: Joint Depot Maintenance Activities Group, *Public-Private Partnerships for Depot-Level Maintenance Through the End of Fiscal Year 2005*, May 2006

# 2005 Phoenix Award Winner

The Highest Secretary of Defense Award for Field-Level Maintenance

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***3d Battalion, 7th Field Artillery Regiment,  
25th Infantry Division (Light),  
Schofield Barracks, Hawaii  
United States Army***

- Sustained a 97% operational readiness rate in support of CONUS and Pacific exercises and a combat deployment to Afghanistan
- Drove more than 95,000 miles and delivered 8,000 rounds of artillery and mortar fire
- Maintained more than 4,300 pieces of equipment with only 16 mechanics

# 2005 Secretary of Defense Maintenance Award Winners

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- Field Maintenance Awards
  - 3rd Battalion, 7th Field Artillery Regiment, 25th Infantry Division (Light), Schofield Barracks, Hawaii, USA
  - 428th Transportation Company, 89th Regional Readiness Command, Jefferson City, Missouri, USA
  - USS GEORGE WASHINGTON (CVN 73), Naval Station Norfolk, Virginia, USN
  - Aircraft Intermediate Maintenance Detachment, Naval Air Station New Orleans, Louisiana, USN
  - Combat Service Support Battalion 12, (1st Maintenance Battalion), I Marine Expeditionary Force, Camp Pendleton, California, USMC
  - 31st Maintenance Operations Squadron, 31st Maintenance Group, 31st Fighter Wing, Aviano Air Base, Italy, USAF
- Robert T. Mason Award for Depot Maintenance Excellence
  - Marine Corps Maintenance Center, Albany; *Vehicle Armor Protective Kits Program*

## 2006 Secretary of Defense Maintenance Award Winners

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- Helicopter Antisubmarine Squadron Light Four Seven, Naval Air Station North Island, California, USN
- 303d Intelligence Squadron, Osan Air Base, Republic of Korea, USAF
- 297<sup>th</sup> Transportation Company, Fort Hood, Texas, USA
- 437th Maintenance Squadron/315th Maintenance Squadron, Charleston Air Force Base, South Carolina, USAF
- 3rd Wing, Elmendorf Air Force Base, Alaska, USAF
- 3D Materiel Readiness Battalion, Okinawa, Japan, USMC

# 2006 Robert T. Mason Award for Depot Maintenance Excellence

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Maintenance  
Awards

## **Red River Army Depot, Texarkana, Texas** *High Mobility Multipurpose Wheeled Vehicle Recapitalization Program*

- Initiated program to restore primarily battle-damaged vehicles to like-new condition
- Ramped up annual production from 43 to 2,789 vehicles
- Exceeded planned 2005 output by 33%
- Reduced average defects by 46%, cycle time by 45%, average cost by 42%, and direct hours by 55%
- Contributed significantly to meeting warfighter equipment needs

# Acronyms

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ACAT	Acquisition Category
AIMD	Aircraft Intermediate Maintenance Detachment
AD	Army Depot
ADUSD(MR&MP)	Assistant Deputy Under Secretary of Defense for Materiel Readiness & Maintenance Policy
ALC	Air Logistics Center
AMARC	Aerospace Maintenance and Regeneration Center
AVIM	Aviation Intermediate Maintenance
CONUS	Continental United States
DLA	Defense Logistics Agency
DLH	Direct Labor Hour
DoD	United States Department of Defense
DMEA	Defense Microelectronics Activity
DS/GS	Direct Support/General Support
DUSD(L&MR)	Deputy Under Secretary of Defense for Logistics and Materiel Readiness
IMF	Intermediate Maintenance Facility
LP&P	Logistics Plans and Programs
MALS	Marine Aviation Logistics Squadron
MC	Maintenance Center
MXG	Maintenance Group
NAVAIR	Naval Air Systems Command
NAVSEA	Naval Sea Systems Command

# Acronyms (Cont.)

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NSWC	Naval Surface Warfare Center
NSY	Naval Shipyard
NUWC	Naval Undersea Warfare Center
OSD	Office of the Secretary of Defense
PBL	Performance-Based Logistics
PPBES	Planning, Programming, Budgeting, and Execution System
SCI	Supply Chain Integration
TP	Transportation Policy
USA	United States Army
USAF	United States Air Force
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics
USMC	United States Marine Corps
USN	United States Navy

# Explanatory Notes

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- As depicted on page 7, DoD maintenance is performed at several levels of complexity, ranging from the rapid removal and replacement of components to complete overhaul or rebuild of a weapon system. The following terms are used throughout the *Fact Book*:
  - **Depot-level** for the most complex and extensive work
  - **Intermediate-level** for less complex maintenance performed in operating unit backshops, base-wide activities, or in consolidated **regional** facilities
  - **Organizational-level** for more time-sensitive work performed in the field, on the flight line, or at the equipment site
  - **Field-level** signifies the combination of the organizational and intermediate levels.
- All charts in this document reflect FY2005 year-end data unless otherwise noted.
- Personnel totals on pages 8–15 include personnel with maintenance skills. The depot total on page 8 also includes personnel with non-maintenance skills.
- An electronic version of this document, as well as other information about the responsibilities and functions of the DoD Materiel Readiness and Maintenance Policy office, is located on the following website: <http://www.acq.osd.mil/log/mppr/index.htm>.
- This document is published for information only and does not constitute official DoD correspondence.



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